(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 22 January 2004 (22.01.2004)

PCT

(10) International Publication Number WO 2004/007223 A1

(51) International Patent Classification7:

...

B60G 17/005 (

(21) International Application Number:

PCT/SE2003/001071

(22) International Filing Date: 23 June 200

23 June 2003 (23.06.2003)

(25) Filing Language:

Swedish

(26) Publication Language:

English

(30) Priority Data:

0202207-7

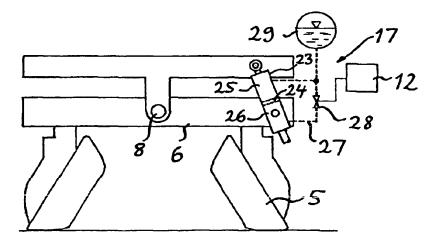
15 July 2002 (15.07.2002) SE

(71) Applicants (for US only): DAHLSTRÖM, Magnus (heir of the deceased inventor) [SE/SE]; Fjällgatan 22, S-116 28 Stockholm (SE). VIKTORSSON, Llsa (heiress of the deceased inventor) [SE/SE]; Bergmansgatan 20, S-983 35 Malmberget (SE). DAHLSTRÖM, Johanna (heiress of the deceased inventor) [SE/SE]; Centralvägen 3, 3tr, S-186 31 Vallentuna (SE). DAHLSTRÖM, Sara (heiress of the deceased inventor) [SE/SE]; Dalhovägen 4B, S-191 45 Sollentuna (SE).

- (71) Applicant and
- (72) Inventor: SEGERLJUNG, Max [SE/SE]; Penglund 112, S-911 94 Vännäs (SE).
- (72) Inventor: DAHLSTRÖM, Kurt (deceased).
- (74) Agents: OLSSON, Jan et al.; Bjerkéns Patentbyra KB, Box 1274, S-801 37 Gävle (SE).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CII, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
- (84) Designated States (regional): ARIPO patent (GII, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: A VEHICLE AND A METHOD FOR CONTROL THEREOF



(57) Abstract: A vehicle having a chassis (1) and at least two mutually separated wheels arranged on a first side of the chassis and two mutually separated wheels on the opposite, second side of the chassis where the wheels on the first side are rotatable about axes that are substantially fixed in position in a vertical plane relative to the chassis and the wheels (5) on the second side are arranged on a frame part (6) that is pivotably arranged relative to the chassis about a central longitudinal axis (8) running between the first and second sides of the vehicle to create a stability area for the vehicle in the shape of a triangle in the horizontal plane. Means (17) is designed so that when the vehicle's tipping point reaches the boundary area of the stability triangle the means starts to gradually increase the resistance against the tipping of the frame part relative to the chassis about said axis on increasing departure of the tipping point from the triangle's centre and when the tipping point reaches a predetermined boundary to completely fix the frame part relative to the chassis and form a stability area to be defined by said wheels.

VO 2004/00/7223 A1

European patent (AT, BE, BG, CII, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 03/01071

		P61/	3E 03/01	10/1					
A. CLASS	IFICATION OF SUBJECT MATTER								
IPC7: E	360G 17/005 o International Patent Classification (IPC) or to both na	tional classification and IPC		·					
B. FIELD	S SEARCHED								
Minimum do	ocumentation searched (classification system followed by	classification symbols)							
	360G, B66F	•							
Documentat	ion searched other than minimum documentation to the	extent that such documents a	re included in	the fields searched					
	I,NO classes as above								
Electronic d	ata base consulted during the international search (name	of data base and, where pract	icable, search	terms used)					
EPO-INTERNAL, WPI DATA, PAJ									
C. DOCUMENTS CONSIDERED TO BE RELEVANT									
Category*	Citation of document, with indication, where app	ropriate, of the relevant pa	assages	Relevant to claim No.					
A	US 5947516 A (ISHIKAWA), 7 Sept column 6, line 36 - line 40; line 8 - line 57, figures 1- abstract	column 8,		1,3-9,13-19					
A	US 5188248 A (DOHNALIK), 23 Sept column 1, line 19 - line 29; line 45 - line 68; column 3, line 22, column 8, line 8 -	column 2, line 50 - column	4,	1,3-9,13-19					
P,A	WO 03024858 A1 (INGERSOLL-RAND 0 27 March 2003 (27.03.03), pa page 4, line 33 - page 5, li line 29 - page 7, line 13	ge 1, line 4 - li	ne 19;	. 1,3-9,13-19					
									
Further documents are listed in the continuation of Box C. X See patent family annex.									
* Special categories of cited documents: "I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand									
to be of particular relevance "B" earlier application or patent but published on or after the international fling date "B" considered on or after the international fling date "S" document of particular relevance: the claimed invention cannot be "S" considered to involve on inventive									
"L" document which may throw doubts on priority claim(s) or which is step when the document is taken alone cited to establish the publication date of another citation or other									
	reason (as specified) nt referring to an oral disclosure, use, exhibition or other	considered to involve a combined with one or r	n inventive step more other such	when the document is documents, such combination					
"P" docume	nt published prior to the international filing date but later than rity date claimed	being obvious to a pers "&" document member of the							
Date of the	e actual completion of the international search	Date of mailing of the int 1 9 -11- 2		earch report					
	ember 2003			· · · · · · · · · · · · · · · · · · ·					
	mailing address of the ISA/	Authorized officer							
	Patent Office , S-102 42 STOCKHOLM	Enik Wica/EV		•					
	No. +46 8 666 02 86	Erik Wiss/EK	782 25 ON						

INTERNATIONAL SEARCH REPORT

International application No. PCT/SE 03/01071

Patent document cited in search report			Publication date	Patent family member(s)		Publication date	
JS	5947516	A	07/09/99	CN DE EP JP	1210089 69807161 0891883 11035298	D,T A,B	10/03/99 02/01/03 20/01/99 09/02/99
JS	5188248	Α	23/09/93	CA EP	2041105 0454474	* -	28/10/91 30/10/91
√O	03024858	A1	27/03/03	US	2003060923	Α.	27/03/03

Form PCT/ISA/210 (patent family annex) (July 1998)